## TORNADOES IN WISCONSIN, SEPTEMBER 21, 1924

By W. P. Stewart, Associate Meteorologist (Weather Bureau, Milwaukee, Wis., October, 1924)

On Sunday, September 21, 1924, a marked area of low pressure passed northeastward across Wisconsin, causing high winds throughout the State and destructive squalls and tornadoes over wide areas in many north-central and northern counties. There was more or less damage in all parts of the State. At Milwaukee, in the southeast, many trees and wires were blown down, windows were broken, and a yacht was sunk in the harbor. The maximum wind was 36 miles from the southwest. At Superior, in the extreme northwestern portion of the State, the high wind caused considerable damage to growing crops. The maximum wind at Duluth was 64 miles from the northwest. Between these two extreme points the degree of damage varied greatly. It was most serious over a belt about 100 miles wide extending from southwest to northeast across Wisconsin, the southern edge of the belt passing just north of the center of the State.

Within this belt there were certainly two, and possibly four, tornadoes. Fortunately, much of this section is very sparsely settled; otherwise the loss of life and property would have been much greater. Where the tornadoes passed over the more densely populated regions the destruction was very great. A statement from the Governor of Wisconsin says that 36 people were killed, 61 seriously injured, 65 to 75 homes entirely destroyed, about 25 homes more or less damaged, and that the monetary loss would exceed \$800,000. Probably more than 100 people received minor injuries, more than 200 head of cattle and horses were killed, and more than 200 barns were de-

stroyed.

There were two principal tornadoes. One of these originated apparently about 2 p. m. near Chetek, in southeastern Barron County, and traveled about north-northeast through eastern Barron County, and north-western Rusk County, passed diagonally across Sawyer County and probably across the southeastern corner of Bayfield County, and was last seen in northern Ashland County near Marengo. The length of the path was about 90 miles, assuming that it was continuous. Of this we are not certain, as from about the middle of Sawyer County to well up in Ashland County the path is through practically uninhabited territory. Over a stretch of about 45 miles there are no post offices, and no reports were received from that section.

From the best obtainable information it appears that there was one fatality and a property loss of about \$170,000 in Barron County. In Rusk County no fatalities were reported; the property loss was about \$30,000. In Sawyer County two fatalities were reported and the property loss was about \$10,000. This was in the southwestern part of the county; as previously stated the path from there to the northern portion of Ashland County is through practically uninhabited country. In the northern portion of Ashland County seven fatalities and a property loss of about \$40,000 were reported. Apparently the storm lost its tornado characteristics while still some 15 miles from Lake Superior. Several people at Meteor, Sawyer County, say there were two funnel-shaped clouds. No attempt has been made to estimate the speed with which this tornado traveled, because of the apparently unreliable nature of many of the time reports.

The second tornado formed about 2:20 p. m., some 2 miles east and 1 mile south of Augusta, Eau Claire County, and moved northeast across northern Clark County, extreme northwestern Marathon County, eastern Taylor County, Lincoln County, and was last reported in the vicinity of Three Lakes in the northeastern corner of Oneida County, about 4:30 p. m. The distance traveled is about 120 miles, and if the times reported are approximately correct, it traveled nearly 60 miles an hour. This tornado also passed over wide stretches of country that are practically uninhabited. Wherever there were settlements, however, great destruction occurred. The following fatalities and property losses were reported: In Eau Claire County a property loss of about \$4,000, mainly to rather frail buildings; in Clark County, 14 fatalities and a property loss of about \$180,000; in Taylor County, 4 fatalities and a property loss of about \$45,000; in Lincoln County, 2 fatalities and a property loss of about \$80,000; in Oneida County 6 fatalities and a property loss of about \$255,000.

In addition to the foregoing a property loss of about \$4,000 was reported about 4 miles southeast of Antigo, Langlade County. This probably was from a small tornado which is believed to have formed about 25 miles south of the main storm track. It was not reported from any other point, but the reporter says it had all of the tornado characteristics. It is possible that a small tornado may have formed north of the main track also, as at the time the principal storm was passing near Rhinelander, 4 p. m., a destructive storm with a funnel-shaped cloud was reported at Minocqua, 25 miles northwest of there. This tornado, like the one near Antigo, was not reported from any other point.

The width of the path of great destruction in all of these tornadoes varied greatly from place to place; at some points it was not over 200 feet, while at others it was more than half a mile. The estimates of losses were made by the postmasters in the various localities. They include the damage to crops, mainly corn and apples. Corn was blown flat and trees stripped of fruit over a large part of northern Wisconsin. In the path of the tornadoes much timber is reported down.

<sup>1</sup> The tornadoes herein described occurred on the right side and close to the center of the cyclonic storm that was centered between St. Paul, Minn., and Charles City, Iowa, at 8 a. m. 75th meridian time and moving toward the northeast. See track No. VI, chart No II, this Review. The significant feature of the weather chart on the morning of the 21st was the high temperature in the southeastern quadrant of the cyclone. Charles City, Iowa, about 130 miles south of St. Paul, was 10° warmer than the latter, and in general warm south to southeast winds were blowing towards the center of the cyclone, while much cooler northwest winds were blowing around the center in the rear. The tornadoes did not occur until after 2 p. m. about which time the wind-shift line must have been passing over northwestern Wisconsin.—Editor.